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(54) Cash machine security arrangement

(57) A cash dispensing machine (10) has means (12) for enabling the user to observe the area behind them so that they are alerted to the presence of somebody behind them, and a potential risk, before commencement and during use of the machine. The rear observation may be provided by one or more reflective surfaces forming part of the machine housing or mounted around its periphery. The reflective surface(s) may be convex or concave, and of a material resistant to breaking or scratching.

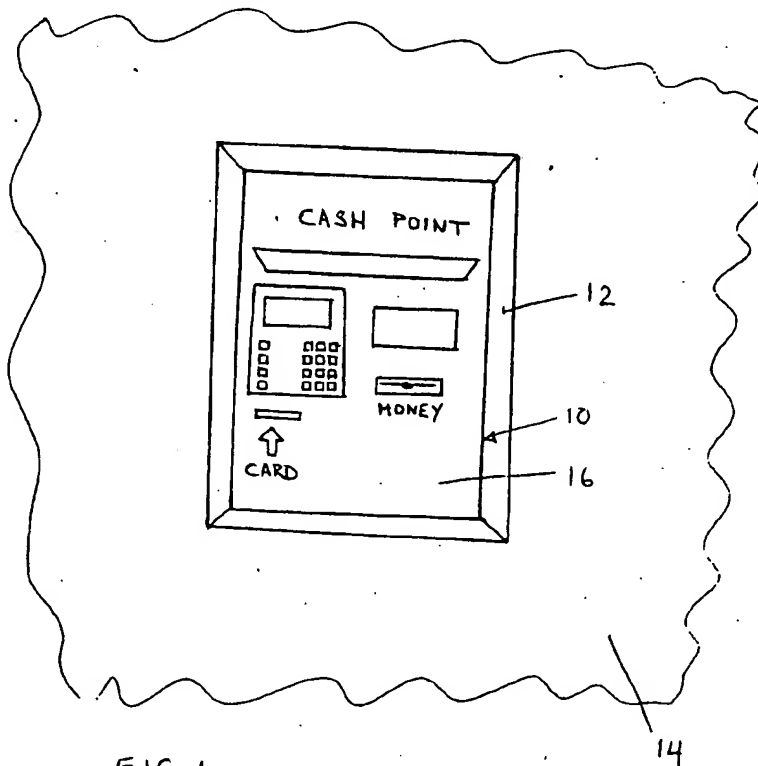


FIG. 1

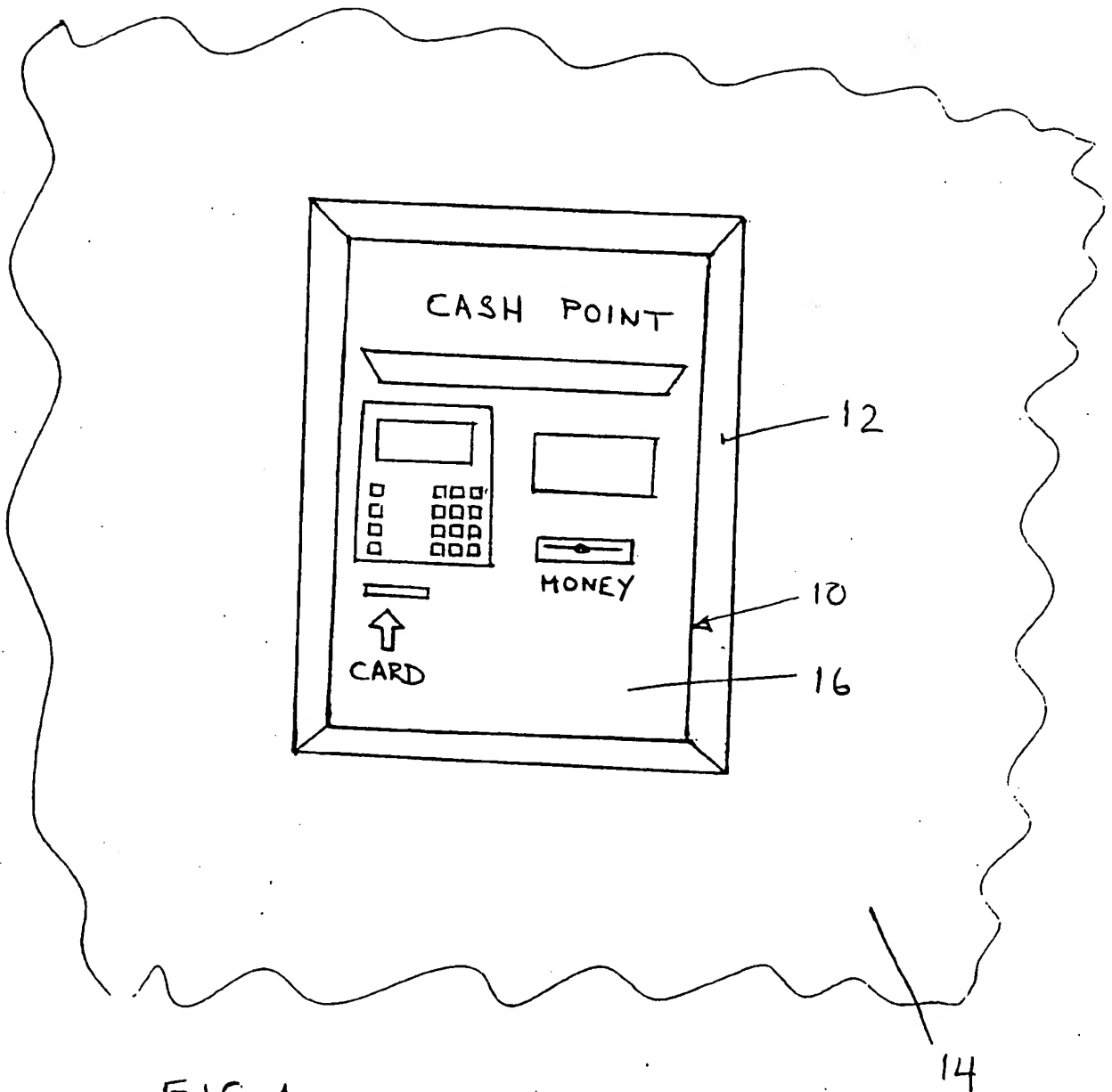


FIG. 1

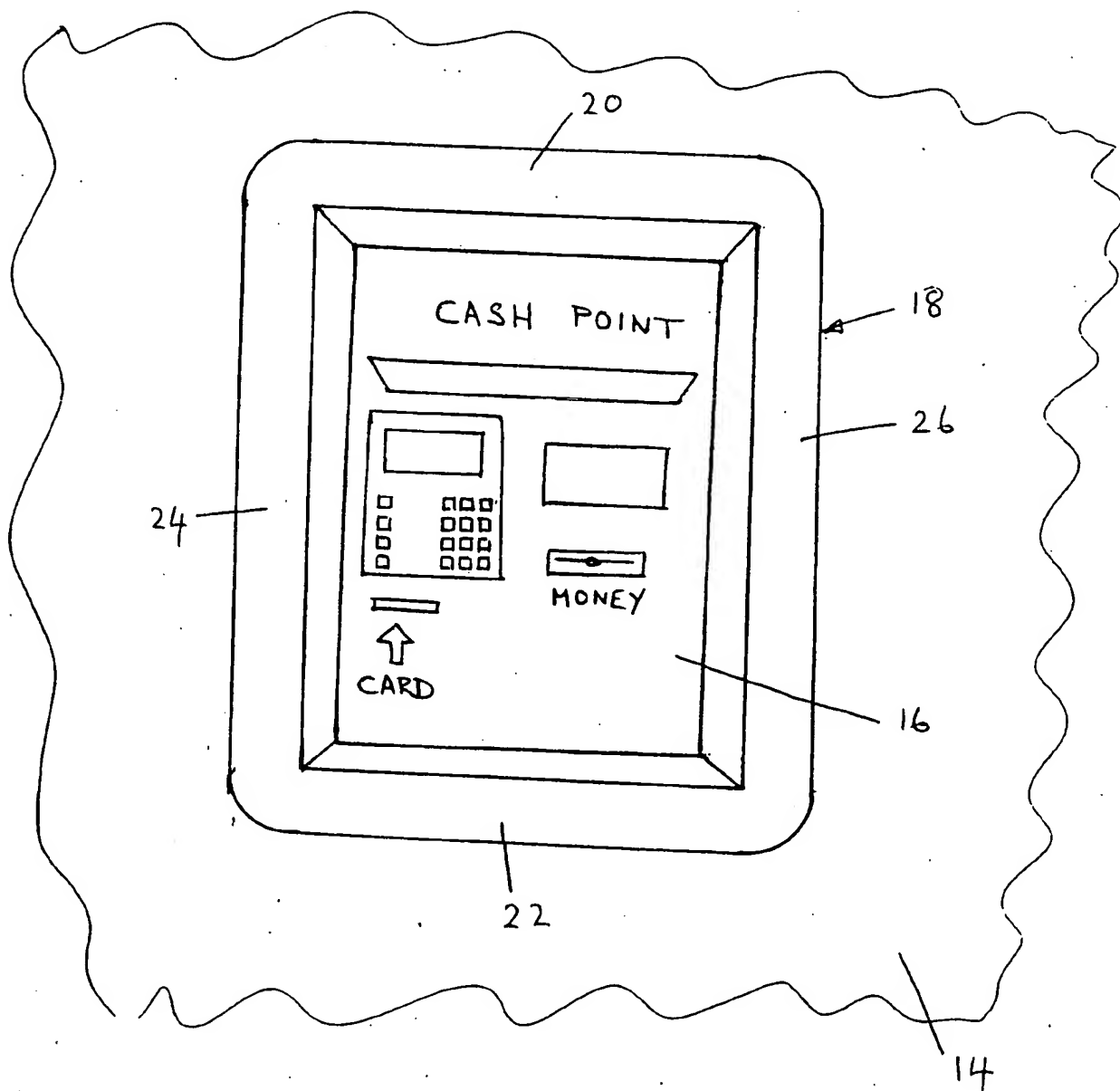


FIG. 2

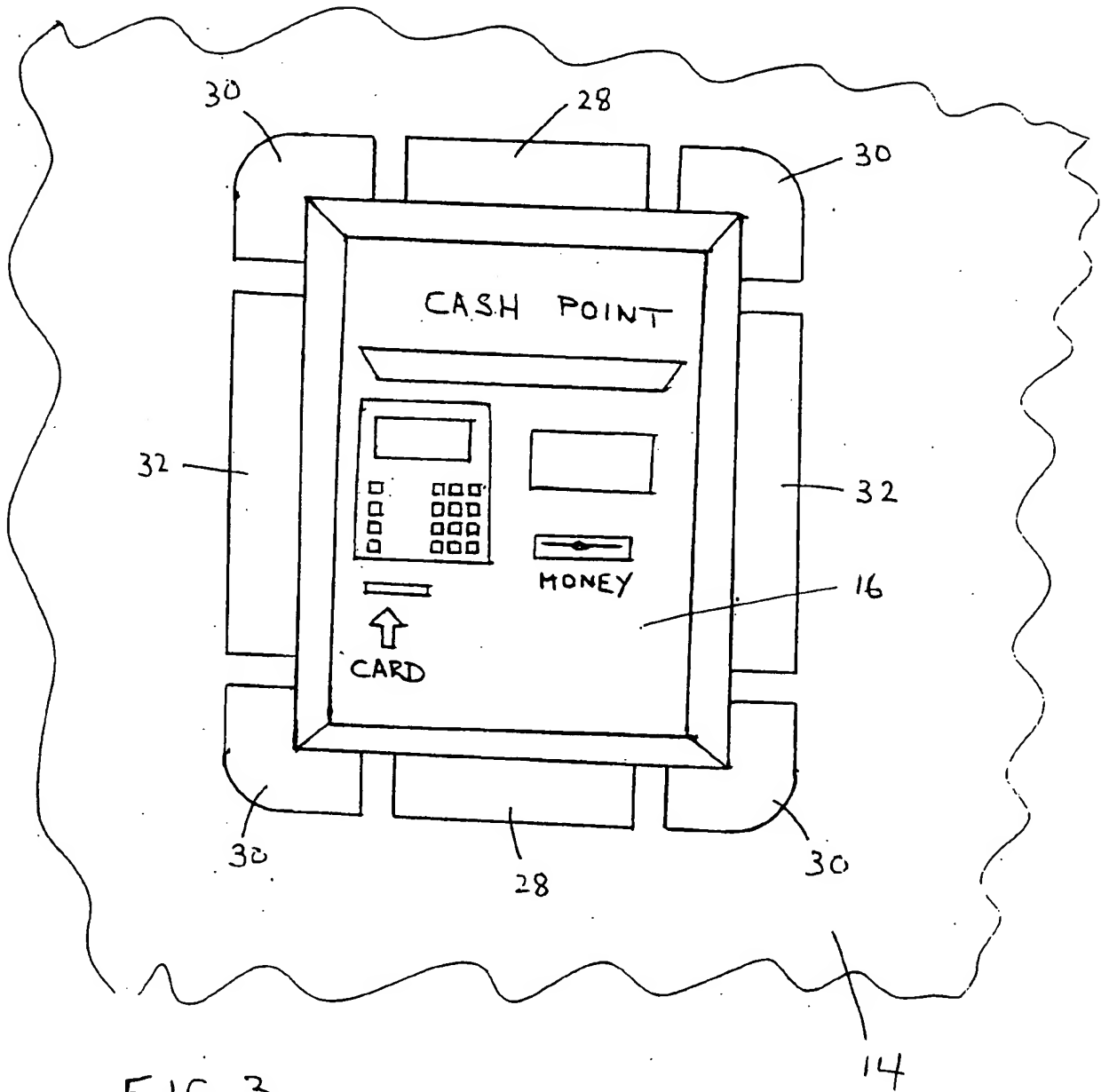


FIG. 3

CASH MACHINE SECURITY ARRANGEMENT

This invention relates to security of the users of cash dispensing machines.

Cash dispensing machines have become very common in recent times and are provided sometimes inside banks or building societies, sometimes in lobbies which are accessible when the bank is not open for business and sometimes in the outside wall of the building where they are accessible by a user in the street. Within the building or lobby such machines may be mounted in a wall similar to the arrangement used outside the bank or may be mounted on a desk or be floor standing. The users of such machines often feel at risk when withdrawing cash from such dispensing machines particularly in the case of those mounted in an outside wall, or in a lobby when the bank is closed. This feeling of insecurity is exacerbated by regular reports of muggings during which withdrawn cash is stolen by a mugger. Users are even concerned that there might be someone behind them ready to perform such an act or to observe the security number of a user (PIN number) and to steal and use their cash withdrawal card. This has led to many users looking behind and all around them to assess the potential risk before commencing use but they are not aware of what is happening around them whilst they are occupied in making a withdrawal. The

present invention has resulted from an appreciation of these concerns of users and seeks to provide an arrangement which increases awareness of risks by users of cash dispensers.

5 According to the invention there is provided in combination a cash dispenser machine with means for enabling the user to observe the area behind them.

 The means for enabling the user may comprise one or more reflective surfaces which provide a reflection
10 of the scene behind the user. The reflective surface may be provided on the cash machine itself and/or may be disposed adjacent to the machine. In the case of a wall mounting dispensing machine, a reflective collar may be arranged around the wall aperture in which the
15 machine is mounted. The collar may form part of the housing of the cash machine or may be a separate component mountable around the aperture. Alternatively one or more reflective surfaces may be provided on the wall at a strategic position, or at strategic
20 positions, to provide a rear view display. The reflective surface(s) may be inwardly or outwardly curved e.g. concave or convex shaped to provide a particular required field of view. The reflective surfaces may be provided by polished metal, e.g.
25 stainless steel, or a metal plating, e.g. chromium plating or mirror surfaces provided preferably on a material resistant to breaking or scratching e.g. toughened glass or plastics such as a polycarbonate

material.

In order that the invention and its various other preferred features may be understood more easily, some embodiments thereof will now be described by way of example only, with reference to the drawings, in which:-

Figure 1 is a front view of one embodiment of a wall mounted cash dispenser machine incorporating the principles of the invention,

Figure 2 is a front view of a second embodiment of wall mounted cash dispenser machine having a reflective collar forming a combination in accordance with the invention, and

Figure 3 is a third embodiment of a wall mounted cash dispenser machine with a plurality of separate reflective surfaces forming a combination in accordance with the invention.

In referring to the drawings the same reference numerals will be used throughout for similar parts of different embodiments.

Referring now to Figure 1 there is illustrated a cash dispenser machine 10 the configuration of which will be familiar to the reader. The cash machine is mounted in a recess 12 on a vertical wall 14. The outwardly facing surface 16 of the machine differs from conventional machines in that it is made to be reflective. There are various ways of providing a reflective surface e.g. the surface may be a polished

metal, e.g. stainless steel, or may be plated e.g. chrome plated or may be formed by a mirror which preferably is unbreakable and scratch resistant e.g. a toughened glass or plastics e.g. polycarbonate. The entire surface may be reflective or only a part of the surface. Alternatively a number of reflective panels (not illustrated) may be provided on a non reflective surface 16. It will be appreciated that the reflective surface will provide a reflection of the view to the rear of the user of the dispenser and by suitable inclination of the reflective surface will display an image showing what is happening behind the user. The surface may be inwardly or outwardly curved in the vertical and/or horizontal direction and may be concave or convex to provide a desired field of view for the user.

A disadvantage of the embodiment of Figure 1 is that if the surface 16 of the cash dispenser machine 10 is of small dimensions the user may obscure a major part of the view behind them. The view is considerably enhanced by the embodiment illustrated in Figure 2 in which the housing of the cash dispenser machine, which may have a reflective surface 16 such as in Figure 2 or a non reflective surface, is provided with a collar which surrounds the recess in which the machine is mounted. the collar is made to be reflective in any of the ways previously described and can be formed to be inwardly or outwardly curved in a vertical and or

horizontal direction along one or more top, bottom or sides portions 20,22,24,26 respectively to define a required field of view behind the user. The portions 20, 22, 24, 26 may be inclined relative to the wall in the same or different directions to provide a required field of view. Such an arrangement provides a very effective warning to a user of the presence of a person behind them and in their near vicinity. It has been found that a collar width of 15cms provides an excellent view for a user. It will be appreciated that the collar 18 need not form part of the housing and in a particularly advantageous form (not illustrated) for use in combination with existing cash dispenser machines it is a separate component which is secured to the wall around the mounting recess. It may in this case be a flat collar adjacent the recess or may be shaped with a flange which projects into the recess to provide a neat lining for the recess and permit securement by for example screwing to the inside of the recess.

The collar arrangements previously described provide a particularly good view for the user. However, in some circumstances it may be felt that an adequate view can be given by providing one or more reflective surface disposed at top, bottom, or sides of the aperture or any combination of such dispositions.

Figure 3 shows reflective surfaces 28, 30, 32 provided at various different optional dispositions and

a cash dispenser reflective surface combination
employing any or all such dispositions is intended to
fall within the scope of this invention. As in the
case of the collar such reflective surfaces can be
5 inwardly or outwardly curved in any direction, or
directions, or may be inclined relative to the wall at
the same or different directions, to provide a required
field of view.

CLAIMS:

1. A cash dispensing machine in combination with means for enabling the user to observe the area behind them.

5 2. A cash dispensing machine combination as claimed in claim 1, wherein the means for enabling the user to observe the area behind them comprises one or more reflective surfaces.

10 3. A cash dispensing machine combination as claimed in claim 2, wherein the or each reflective surface is provided on the cash dispensing machine itself.

15 4. A cash dispensing machine combination as claimed in claim 2, wherein the or each reflective surface is provided adjacent to the machine.

5. A cash dispensing machine combination as claimed in claim 2 or 4, wherein the or each reflective surface are wall mounted.

20 6. A cash dispensing machine combination as claimed in claim 1, 2 or 4, wherein the dispensing machine is a wall mounting device and the means for enabling the user to observe the area behind them is one or more reflective elements arranged at the perimeter of a wall aperture in which the machine is
25 mounted.

7. A cash dispensing machine combination as claimed in claim 6, wherein the or each reflective element forms part of the housing of the cash

9. A cash dispensing machine combination as claimed in any one of claims 6 to 8, wherein a reflective element comprises a collar which extends around the perimeter of the wall aperture.

11. A cash dispensing machine combination as claimed in any one of claims 2 to 10, wherein the or each reflective surface is inwardly curved.

20 13. A cash dispensing machine combination as
 claimed in any one of claims 2 to 10, wherein the or
 each reflective surface is outwardly curved.

15. A cash dispensing machine combination as claimed in any one of claims 2 to 14, wherein the or each reflective surface is formed of a polished metal.

16. A cash machine combination as claimed in any one of claims 2 to 15, wherein the or each reflective surface is provided on a material resistant to breaking or scratching.

5 17. A cash dispensing machine in combination with means for enabling the user to observe the area behind them substantially as described herein with reference to the drawings.



The
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Examiner: Mr. G. Nicholls
Date of search: 8 May 1996

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): G4V (VBH VAK) G4X (X5)

Int Cl (Ed.6): G07F 19/00

Other: ONLINE : WPI, EDOC

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	EP 0081433 A2 (POISSON) Whole document, especially page 5 lines 21 to 23	1 to 3

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.